

4.8.1. BSA Denaturation Inhibition Assay

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 An abbreviated version of this protocol was published in ACS Omega in Jul 2021

Green Synthesis of Gold Nano-bioconjugates from Onion Peel Extract and Evaluation of Their Antioxidant, Anti-inflammatory, and Cytotoxic Studies

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Detailed protocol

BSA Denaturation Inhibition Assay

Inhibition of albumin denaturation was performed by following a standard method (Jyothilakshmi et al., 2020) with slight modification. Different concentrations of samples were mixed with 1.8 mL of 1% BSA solution. The BSA solution were fully solubilized by stirring at 400 rpm for 20 min by adjusting the pH to 6.5. The BSA solution were fully solubilized by stirring at 400 rpm for 20 min. The reaction mixture was carried out at 37 °C for 20 min and then heated to 57 °C for 10 min. After cooling, turbidity was generated and measured the absorbance at 660 nm wavelength using a UV-vis spectrophotometer. Diclofenac sodium and a solution without a sample were considered as a standard and control respectively. The experiments were performed in triplicates. The relative percentage inhibition of protein denaturation was calculated. %Inhibition = $[(\text{Abs control} - \text{Abs sample}) / \text{Abs control}] \times 100$

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1. Devi, R. and Chowdhury, D. (2023). 4.8.1. BSA Denaturation Inhibition Assay. Bio-protocol Preprint. bio-protocol.org/prep2239.
2. Phukan, K. (2021). Green Synthesis of Gold Nano-bioconjugates from Onion Peel Extract and Evaluation of Their Antioxidant, Anti-inflammatory, and Cytotoxic Studies. ACS Omega 6(28). DOI: [10.1021/acsomega.1c00861](https://doi.org/10.1021/acsomega.1c00861)

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